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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/773,847

02/05/2004

Dennis M. O'Connor

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09/29/2006

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EXAMINER

BATAILLE, PIERRE MICHE

ART UNIT

PAPER NUMBER

2186

DATE MAILED: 09/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/773,847

Applicant(s)

O'CONNOR, DENNIS M.

Examiner

Pierre-Michel Bataille

Art Unit

2186

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>02/09/06</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

1. The present Office Action is taken in conjunction to examination of the instant application filed 05 February 2004, which presents claims 1-24 for examination.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-24 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6,754,784 (North et al).

With respect to claims 1, 11, and 17, North discloses circuits, system, and method for information privatization in personal electronic appliances such as handheld personal electronic appliances or portable digital audio player (Col. 1, Lines 24-43) comprising:

an antenna (***general principle of hand held devices, i.e. inherent in all above noted appliances***);

a memory (***flash card, Flash memory, SDRAM, TLB, write buffer, Fig. 1a, 1B***); and

a processor coupled to the antenna and memory (**central processing unit CPU**), the processor comprising: an address generation unit (**CPU having address generation unit generating addresses**); and a memory management unit configured to receive a virtual address from the address generation unit and provide a corresponding physical address (**memory management unit (MMU) for translating virtual addresses to physical addresses; Col. 3, Lines 48-59**),

the memory management unit comprising: a storage containing one or more virtual address-to-physical address translations (**translation look aside buffer (TLB) encaching translated entries and providing translation to associated access control logic**); conversion logic to generate a modified virtual address from the virtual address (**access control logic for the translation of virtual addresses into modified virtual addresses**); and a page table walk unit configured to convert the modified virtual address into the corresponding physical address (**translation table walking logic providing translation to the associated access control logic**) [Col. 3, Lines 48-66; Col. 17, Lines 25-42].

With respect to claim 2, North discloses the memory management unit wherein the conversion logic is configured to replace one or more bits of the virtual address with a process identifier if the one or more bits comprises a predetermined value [Col. 17, Lines 45-50].

With respect to claim 3, North discloses the memory management unit wherein the predetermined value is zero [Col. 4, Lines 44-51; Col. 19, Lines 4-15].

With respect to claim 4, North discloses the management unit is configured to receive the virtual address from an arithmetic logic unit [Col. 4, Lines 44-51; Col. 19, Lines 4-15]..

With respect to claim 5, North discloses the memory management unit wherein the memory management unit is configured to receive the virtual address from an incrementor [Col. 4, Lines 44-51; Col. 19, Lines 4-15].

With respect to claims 6-7, North discloses the memory management wherein the virtual address comprises an instruction address, a virtual address [Col. 12, Lines 13-19].

With respect to claims 8-9, North discloses the memory management unit wherein the one or more virtual address-to-physical address translations are invalidated upon updates to a process identifier [Col. 3, Lines 53-65; Col. 17, Lines 45-58].

With respect to claims 9-10, North discloses the memory management unit; wherein the storage is configured to store one or more most recently generated virtual address-to-physical address translations [Col. 3, Lines 53-65].

With respect to claims 12-16 and 18-24 which correspond to claims 2-10, North discloses the invention as addressed in the claim analysis with respect to claims 2-10 above.

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 2004/0024839 (Okochi et al) teaching translation look aside buffer and physical page map table providing translation of virtual addresses to physical addresses.

US 6,772,315 (Perego) discloses translation look aside buffer extended to provides physical and main memory addresses.

US 6,751,583 (Clarke et al) teaches translation system with multi level lookup table mapping translated virtual addresses to physical addresses.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pierre-Michel Bataille whose telephone number is (571) 272-4178. The examiner can normally be reached on Mon-Fri (8:00A to 4:30P).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew M. Kim can be reached on (571) 272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2186

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Pierre-Michel Bataille  
Primary Examiner  
Art Unit 2186

September 21, 2006

**PIERRE BATAILLE**  
**PRIMARY EXAMINER**